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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,688

06/23/2006

Juergen Fischer

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EXAMINER

STIGLIC, RYAN M

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,688	<b>Applicant(s)</b> FISCHER ET AL.	
	<b>Examiner</b> RYAN M. STIGLIC	<b>Art Unit</b> 2111	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 11-17 and 19-20 are pending and have been examined.
2. Claims 11-17 and 19-20 are rejected.

### ***Response to Arguments***

3. Applicant's arguments, see 5, filed February 19, 2008, with respect to the rejection(s) of claim(s) 11 under 35 U.S.C. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Labana because Labana, in paragraph [0051], suggests adapting a backplane such that the last card slot would connect to the first card slot. Therefore Labana suggests adapting a sequence of card slots to connect to first card slot of an additional backplane.
4. Applicant's arguments, with respect to claim 16, filed February 19, 2008 have been fully considered but they are not persuasive. Labana teaches detecting a status line signal connection between cards [see paragraph 0063] and upon failure of a card the control signals to/from the failed unit are ignored, thereby meeting the claim limitations.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,388,099 (hereinafter Poole) in view of US Patent Application Publication No. 2002/0083365 (hereinafter Labana).

Poole discloses a backplane for establishing a signal connection between a plurality of cards, comprising: a support (Fig. 5; col. 5, ll. 20-67) for signaling lines (Fig. 5, REC-1, REC-2, REC-3, TRANS-RIGHT; col. 5, ll. 20-67) and a plurality of card slots located on said support in a predefined sequence for connecting the cards (Fig. 5, 10; col. 5, ll. 20-67), each of the card slots having a plurality of signal-carrier contacts which are located at each card slot according to a same pattern (Fig. 5; col. 20-67; The signal-carrying contacts have the same pattern.), at least two positions of contacts being defined at the card slots such that a contact at one of these two positions of each card slot that has a successor in said sequence is connected to a contact at the other position of the successor card slot via the backplane (col. 5, ll. 20-67). While Poole discloses a backplane for interconnecting system components they do not disclose a safety function to protect the integrity of the system and users of said system.

Labana teaches a backplane (Fig. 1+) for connecting various processing modules (Fig. 2, 12). The backplane and processing modules comprise circuitry to support a protection system [0053,0058] where upon the detection of a failure of a processing module (e.g. IOB) an adjacent IOB controls its malfunctioning neighbor by re-routing signals away from the failed device [0053, 0058, 0063]. Each processing module includes a signal carrying contact that supplies

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status information to its neighbor thus allowing the neighboring module to re-route signals and disable the malfunctioning device.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to implement the protection system of Labana in the backplane of Poole such that the failure of a malfunctioning card can be detected, signals re-routed and the faulty device disabled thus providing a safety function for the computer system.

For claim 11 Poole in view of Labana teach:

A backplane for establishing a signal connection between a plurality of cards, comprising:

- a support (Fig. 5; col. 5, ll. 20-67) for signaling lines (Fig. 5, REC-1, REC-2, REC-3, TRANS-RIGHT; col. 5, ll. 20-67) and a plurality of card slots located on said support in a predefined sequence for connecting the cards (Fig. 5, 10; col. 5, ll. 20-67), each of the card slots having a plurality of signal-carrier contacts which are located at each card slot according to a same pattern (Fig. 5; col. 20-67; The signal-carrying contacts have the same pattern.), at least two positions of contacts being defined at the card slots such that a contact at one of these two positions of each card slot that has a successor in said sequence is connected to a contact at the other position of the successor card slot via the backplane (col. 5, ll. 20-67)
- and a contact of a card slot that has no successor in said sequence is adapted to be connected to a contact at the other position of a card slot of an additional backplane, the card slot being located at an end of the additional backplane opposite to the position of

said card slot with no successor (Labana, in paragraph [0051], suggests adapting a backplane such that the last card slot would connect to the first card slot. Therefore Labana suggests adapting a sequence of card slots to connect to first card slot of an additional backplane.).

For claim 12 Poole in view of Labana teach:

The backplane of claim 11, in that the contact at said one position of each card slot having an n-th successor in said sequence, n being an integer and larger than one, is in communicating connection with a contact at an i-th position of an i-th successor for all  $i=1, \dots, n$  (Fig. 5; col. 5, ll. 20-67).

For claim 13 Poole in view of Labana teach:

The backplane of claim 12, in that the contact at said one position of each card slot is in communicating connection with an even number of contacts of other card slots (col. 5, ll. 20-67).

For claim 14 Poole in view of Labana teach:

The backplane according to claim 11, in that the card slots form one or more groups and are located spatially adjacent within each group, and in that the defined sequence in each group corresponds to the spatial order of the card slots (Fig. 5; col. 5, ll. 20-67).

For claim 15 Poole in view of Labana teach:

The backplane of claim 14, in that the defined sequence is a cyclical sequence in which a first card slot of the spatial order of a first one of said groups is successor to a last card slot of a last one of said groups (col. 5, ll. 20-67).

For claim 16 Poole in view of Labana teach:

An assembly comprising:

- a backplane (Poole; Fig. 5; col. 5, ll. 20-67) and at least first and second cards connected to card slots of said backplane (Poole; Fig. 5, 10; col. 5, ll. 20-67), the first and second cards being connected by a signal line of the backplane (Poole; Fig. 5, 10; col. 5, ll. 20-67), the signal line extending via a contact at a 0-th position of the card slot of the first card (Poole; Fig. 5, 10; col. 5, ll. 20-67), and the first card controlling a safety function of the second card by said signal line (Labana; [0063]) wherein the second card is adapted to detect if a signal connection to the first card exists via a j-th contact of its slot and to ignore control signals appearing at an i-th contact, where i is greater than j (Labana teaches detecting a status line signal connection between cards [see paragraph 0063] and upon failure of a card the control signals to/from the failed unit are ignored, thereby meeting the claim limitations.).

For claim 17 Poole in view of Labana teach:

The assembly of claim 16, in that the safety function is an automatic demagnetization of a laser source of the second card (While Poole and Labana do not explicitly teach the demagnetization

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of a laser source of a second card they do teach of a failure a card and shutting down the faulty card (Labana; [0063]). Therefore one of ordinary skill in the art would clearly recognize that an Input/Output Board (from Labana) (e.g. a fibre optic card) that has malfunctioned will have its signals re-routed and the device shut down, thus demagnetizing a laser associated with the fibre optic transmitter.).

For claim 19 Poole in view of Labana teach:

The assembly of claim 16, in that a signal connection between an  $i$ -th contact of a card slot and an  $(i+2)$ -th contact of a succeeding card slot of said defined sequence is interruptible by mounting a card in a card slot located between said two card slots (Poole; col. 5, ll. 20-67).

For claim 20 Poole in view of Labana teach:

The assembly according to claim 19, in that the first card is connected by said signal line to one contact, referred to as the  $i$ -th contact, of the  $i$ -th successor of its own card slot and with a contact referred to as the  $(-i)$ -th contact, of the  $i$ -th predecessor of its own card slot for all  $i=1, \dots, n$  (Poole; col. 5, ll. 20-67).



***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN M. STIGLIC whose telephone number is (571)272-3641. The examiner can normally be reached on Monday - Friday (7:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571.272.3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. M. S./

Patent Examiner, Art Unit 2111

/Paul R. Myers/

Primary Examiner, Art Unit 2111